Lab Assignment

Functions

PY-05-L4
Main Identification

Lab Objective

Understand the value of the **___main___** variable and how to use it in code.

Lab Mission

Prepare a program that executes only if its main file is run directly.

Lab Duration

15–25 minutes

Requirements

- Basic knowledge of Python

Resources

- Environment & Tools
    - Windows or Linux
        - PyCharm
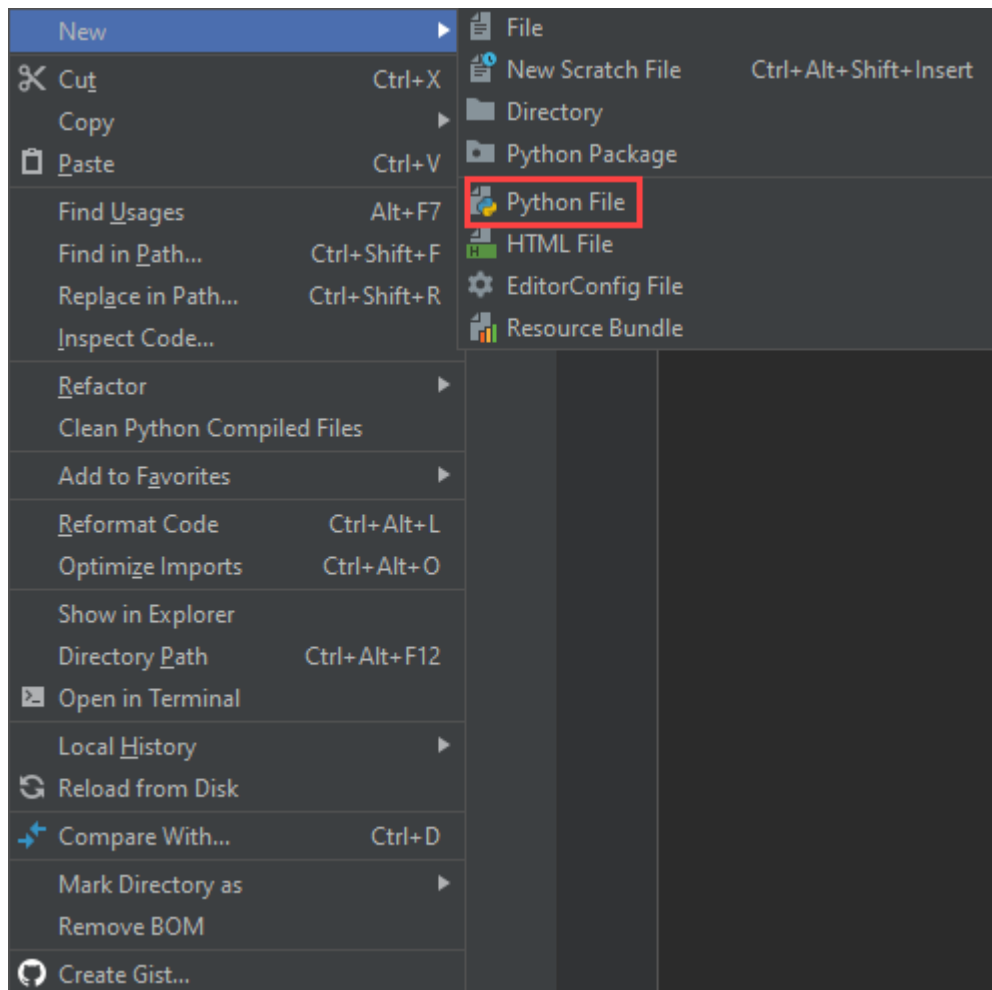   - Python 3

Textbook References

- Chapter 5: Functions
    - Section 2: Code Handling

Lab Task: Main Identification

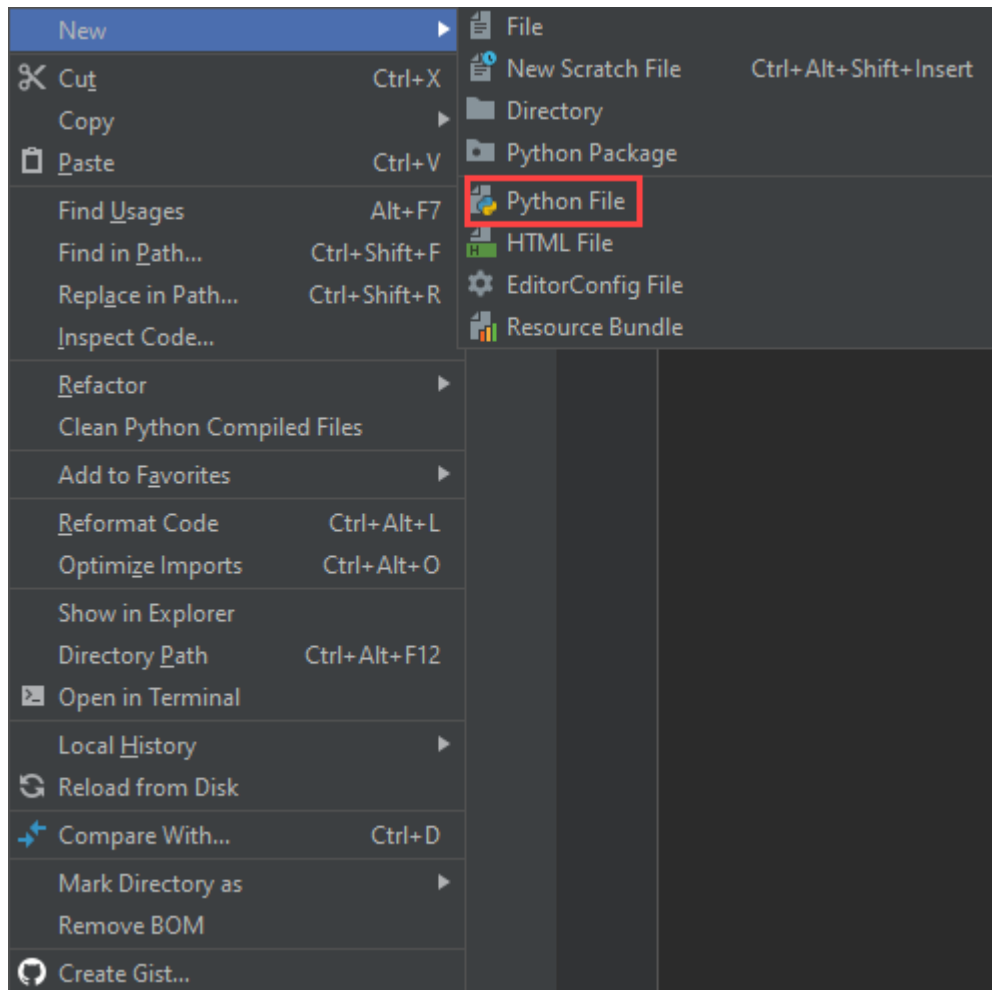Execute a Python file by checking if it is directly executed and understanding the mechanism.

1 Create a new Python file in PyCharm by right-clicking the project you created and selecting **New** > *Python File*. Name this file *message.py*.

2 Define a new function that prints the file name in *message.py*.

```python
def main():
    print("Hello from:", __name__)
```

3   Create a second Python file in PyCharm by right-clicking the project you created and selecting **New** > *Python File*.

New	▶		File
✂ Cut	Ctrl+X		New Scratch File Ctrl+Alt+Shift+Insert
Copy	▶		Directory
📋 Paste	Ctrl+V		Python Package
Find Usages	Alt+F7		Python File
Find in Path...	Ctrl+Shift+F		HTML File
Replace in Path...	Ctrl+Shift+R		EditorConfig File
Inspect Code...			Resource Bundle
Refactor	▶		
Clean Python Compiled Files			
Add to Favorites	▶		
Reformat Code	Ctrl+Alt+L		
Optimize Imports	Ctrl+Alt+O		
Show in Explorer			
Directory Path	Ctrl+Alt+F12		
Open in Terminal			
Local History	▶		
Reload from Disk			
Compare With...	Ctrl+D		
Mark Directory as	▶		
Remove BOM			
Create Gist...			

4   Import to the file the previous file.

```
import message
```

5   Create a new function.

```
def main():
```

6   Within the function, invoke the main function of the imported file.

```
def main():
    message.main()
```

7   Outside of the function, create a condition that checks if the current file is directly executed.

```
if __name__ == '__main__':
```

8   Within the condition, print the file's name and invoke the main function of the file.

```
if __name__ == '__main__':
    print(__name__)
    main()
```

9   Run the file.